

REMARKS

Claims 1 to 3, 5 to 14, 16 to 28 and 56 to 65 remain in this application. Claims 4, 15 and 29 to 55 have been cancelled, without prejudice, to filing in a continuing application.

Claims 9, 10, 20, 21, 62 and 64 have been amended to improve definiteness. Support for the amendments is found in Figures 8 and 9.

Claims 26 to 28 have been amended to correct clerical errors. There was no antecedent basis for "surface covering" in claim 26. The definiteness of claims 27 and 28 have been improved by conforming the preamble to the remaining claims.

Claims 56 to 59, 63 and 65 have been rewritten in independent form including all of the limitations of the claims from which each depends. Applicants wish to thank the Examiner for indicating the allowability of these claims.

Claims 1 to 3, 5 to 14 and 16 to 28 have been provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 to 28 of copending Application No. 10/395,297. The Examiner's attention is directed to paragraph 4 of the Division-Continuation Program Application Transmittal Form, filed in Application Serial No. 10/395,297, in which claims 1 to 28 were canceled.

Claims 1 to 3, 5 to 10, 12 to 14, 16 to 21, 23 to 28, 60 to 62 and 64 have been rejected as being obvious over Shalov et al. in view of Ehrhart et al. While Shalov discloses a topcoat and wear layer that comprise polyester acrylates, the present claims are limited to topcoats and wear layers in which the resin binder consists essentially of a thermoset resin that may include an acrylated polyester.

The invention of Shalov is a wear layer composition that comprises a thermoplastic polymer, a plasticizer and a reactive crosslinking agent. See the Abstract and column 3, lines 23 to 26, for example. Further, Shalov believes that the

“combination of beneficial properties is due, at least in part, to ... the thermoplastic polymer and the cured crosslinking agent compris[ing] an interpenetrating polymer network (IPN). It is believed that the presence of such a polymer network produced in accordance with the present invention results in a wearlayer having sufficient micro-elasticity to avoid scuffing, scratching and gloss loss while being sufficiently non-porous to be stain resistant.”

Column 4, lines 38 to 47. Also, at column 7, lines 36 to 40, Shalov states

“it is believed that the highly desirable combination of properties which may be achieved in accordance with the present invention is obtain [sic, obtained] as a result of synergistic interaction of the thermoplastic polymer, plasticizer and crosslinking agent of the present invention.”

Substituting the wear layer composition of Ehrhart, as suggested by the Examiner, destroys the invention of Shalov. As stated by the Patent and Trademark Office Board of Appeals in Ex parte Hartmann, 186 USPQ 366, 367 (1974),

“Reynolds cannot properly be combined with Graham et al. ... since to do so would destroy that on which the invention of Graham et al. is based.”

Also see Deere & Company v. International Harvester Company, 496 F.Supp 397, 406-7 (USDC CD Ill, 1098), where the court held that while it was argued that

“it would be obvious to [modify] Braud ... in view of certain secondary references. The court finds that such reconstruction, even if it were physically possible, would destroy an important attribute of the Braud [invention]. That modification ... would destroy the cardinal feature, taught by Braud. Because [the modification] would contradict the teaching of Braud, claim 9 could not be rendered obvious thereby. Braud's teaching tends to lead away from the claimed invention rather than toward it.”

Therefore, present claim 1 and the claims dependent thereon should be allowed.

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Further, the Examiner states near the middle of page 4 of the Office Action, dated October 31, 2003, that

“It would have been obvious to one of ordinary skill in the art to make the surface covering of Shalov with the stain resistance of less than about 150 Delta E units since it is known, as shown by Ehrhart, that radiation curable topcoat layers with such a stain resistance is desirable in floor coverings to prevent household stains from becoming permanent in the floor covering.”

However, Ehrhart does not teach or suggest that such stain resistance is possible in pigmented topcoats.

Pigments are known to interfere with the radiation cure of resins. See Tomotsugu et al. US Patent No. 5,338,613, column 4, lines 62 and 63, “the proportion of such pigments should not be large enough to interfere with ultraviolet curing.” At column 6, lines 28 to 31, of Friedlander et al. US Patent No. 5,536,760, they state “Coloring pigments generally employed to impart color in non-UV cured, coating compositions typically absorb or block ultraviolet light thereby interfering with UV curing of the composition.” In Kamen et al. US Patent No. 5,571,359, at column 1, lines 34 to 37, the statement is made “One of the major drawbacks of radiation curable inks is that the addition of heavy metal pigments ... to the ink composition will interfere with the radiation curing.” Copies of these references are enclosed for the convenient reference of the Examiner.

It is not evident that a pigmented Ehrhart composition will retain the desired stain resistance and gloss retention. Therefore, even if the Ehrhart composition were modified to include the pigment of Shalov and then substituted for the composition of Shalov, it is not evident that the resulting wear layer would have the stain resistance

required by the present claims. Therefore, claim 1 and all of the claims dependent thereon should be allowed.

Claims 6, 8, 17, 19, 25 and 28 require the topcoat or wear layer to be in register with the printed pattern or embossed texture. In the carryover paragraph on pages 3 and 4 of the Office Action, dated October 31, 2003, the Examiner takes the position that topcoat and wear layer of Shalov is in register with the printed pattern and embossed texture by indenting with the substrate, that the topcoat and wear layer are disposed on the raised surfaces and in the indentations, referring to Figure 2.

However, Shalov does not teach or suggest the topcoat or wear layer being in register with the printed pattern or embossed texture as used in the present application. The definition of "register" as intended by Applicants is definition 2b for "register \\\nb" on page 1912 of Webster's Third New International Dictionary of the English Language Unabridged, published by G. & C. Merriam Company, 1971, enclosed herewith:

"b: to superimpose (two or more images) exactly (as in photographic printing or projection)"

At page 14, lines 3 and 4, of the present specification, Applicants, referring to Figures 6 and 7, state

"the printed high performance topcoat 4 or wear layer 5 can be in register with the back printed pattern 6 for enhanced visual effects"

and at page 15, lines 11 to 14, referring to Figure 10, state

"Then a wear layer 11 is applied covering the entire surface of the floor covering and a screen printed radiation cured high performance wear layer 5 is applied in register with the areas which become up areas when the composite is mechanically embossed."

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Figure 6 shows the topcoat 4 superimposed over (i.e. aligned above) the printed pattern 6. Figure 7 shows the wear layer 5 superimposed over (i.e. aligned above) the printed pattern 6. Figure 10 shows the wear layer 5 superimposed over (i.e. aligned above) the up areas. Note topcoat 4 and wear layer 11 in Figure 10 cover the entire surface of the floor covering, similar to wear layers 19 and 20 in Figure 2 of Shalov, but are not stated to be in register.

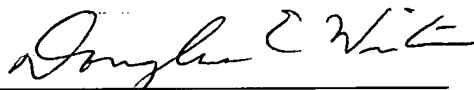
Shalov does not teach over suggest a topcoat or wear layer that is in register with the printed pattern or embossed texture, as the term is used in the present application. Therefore, claims 6, 8, 17, 19, 25 and 28 are allowable over Shalov in view of Ehrhart.

Claims 9, 10, 20, 21, 62 and 64 have been amended to require either a portion of the raised surfaces or a portion of the indentations to be free of pigmented topcoat or pigmented wear layer. This feature is neither taught nor suggested by Shalov or Ehrhart. Therefore, claims , 10, 20, 21, 62 and 64 should be allowed.

Applicants submit that all of the claims are in a condition for allowance. Therefore, early consideration and allowance are respectfully requested.

Respectfully submitted,

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Date



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